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JNANA BHARATHI
BANGALORE - 560 056

BUB/CTE/2016-17/

Date: 25-04-2016

1. TESTING OF FINE AGGREGATES:

Sub: Testing of Fine Aggregates.
{Project*: Development and Improvements to Roads and Drains in Main Road and Cross Roads of Ward No.05, Jakkur}

Ref.: Letter No. Testing/BUB/2016-17, dated 21-04-2016

Sample supplied to lab by: Assistant Executive Engineer
Byatarayanapura Sub-Division
BBMP, Bangalore.

Name of the Agency*: M/s.KRIDL, Bangalore

TABLE - 1.1 : SIEVE ANALYSIS :

IS Sieve Size, mm	**Percentage Passing**	Specification as Per IS: 383-1970(Reaffirmed 2007) **Percentage Passing**				Remarks
		Zone-I	**Zone-II**	**Zone -III**	**Zone -IV**	
10.00	**100.00**	100	100	100	100	The Sample Conforms to Grading **Zone-II**
04.75	**97.20**	90-100	90-100	90-100	95-100	
02.36	**87.00**	60-95	75-100	85-100	95-100	
01.18	**73.00**	30-70	55-90	75-100	90-100	
600. mic	**41.00**	15-34	35-59	60-79	80-100	
300.mic	**22.00**	5-20	8-30	12-40	15-50	
150.mic	**3.90**	0-10	0-10	0-10	0-15	

TABLE 1.2 ;

Sl No	Test Conducted	Sample	Results	Requirements as Per IS. Specification IS :383-1970 (Reaffirmed 2002)
1	Silt Content	001	1.41 %	Not more than 8%
2.	Specific Gravity	----	2.62	-------

*As Furnished by Client.

The Results relate only to the items tested

AE-05
n/a

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬೆಂಗಳೂರು-24

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25/04/2016

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JNANA BHARATHI
BANGALORE - 560 056

BUB/CTE/2016-17/

Date: 30-04-2016

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).
{Project*: Development and Improvements to Roads and Drains in Main Road and Cross Roads of Ward No.05, Jakkur}

Ref.: Letter No. Testing/BUB/2016-17, dated 21-04-2016

Sample supplied to lab by: Assistant Executive Engineer
Byatarayanapura Sub-Division
BBMP, Bangalore.

Name of the Agency*: M/s.KRIDL, Bangalore

PHYSICAL TESTS ON CEMENT

Brand* : Birla Super
Grade * : 53
Type * : OPC
Date : 22-04-2016 to 29-04-2016

SL No	Name of Test	Results	Requirements as per IS 12269-1987
		Cement Sample	
1	Initial setting time	**160 min**	Shall not be less than 30 min
2	Final setting time	**270 min**	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	**2.40%**	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	**1.60 mm**	Shall not be more than 10 mm
5	Compressive strength a) 3 days (average of three results) b) 7 days (average of three results)	**29.30 N/ Sq mm** **41.50 N/Sq mm**	Shall not be less than 27 N/Sqmm Shall not be less than 37N/Sqmm

*As Furnished by Client.

The Results relate only to the items tested.

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
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JNANA BHARATHI
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BUB/CTE/2016-17/

Date: 25-04-2016

1. TESTING OF COARSE AGGREGATES (40 mm):

Sub: Testing of Coarse Aggregates.
{Project*: Development and Improvements to Roads and Drains in Main Road and Cross Roads of Ward No.05, Jakkur}
Ref.: Letter No. Testing/BUB/2016-17, dated 21-04-2016
Sample supplied to lab by: Assistant Executive Engineer
Byatarayanapura Sub-Division
BBMP, Bangalore.
Name of the Agency*: M/s.KRIDL, Bangalore

Table - 1.1 : SIEVE ANALYSIS :

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2002) % Passing	
	40 mm Sample	*Single size*	*Graded*
40mm	98.00	85-100	95 – 100
20mm	69.30	0 -20	30- 70
10mm	26.10	0 -5	10- 35
4.75mm	Nil	------	0 - 5

TABLE 1 2 :

SL No	Test conducted	Sample No	Results	Requirements as per IS:383-1970 & Test Conforms to IS 2386(Part I to IV) – 1963 (Reaffirmed on 2002)
1.	Flakiness Index	As above	16.20 %	Not to exceed 25 %
2.	Crushing value	----,,----	25.70 %	Not to exceed 45 % for concrete other than for wearing surfaces and 30% for concrete for wearing surfaces

*As Furnished by Client.
The Results relate only to the items tested.

Page No. 1/1,

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BUB/CTE/2016-17/

Date: 25-04-2016

1. TEST REPORT ON REINFORCEMENT STEEL :

Sub: Testing of Reinforcement Steel of diameter 10mm.
{Project*: Development and Improvements to Roads and Drains in Main Road and Cross Roads of Ward No.05, Jakkur}

Ref.: Letter No. Testing/BUB/2016-17, dated 21-04-2016

Sample supplied to lab by: Assistant Executive Engineer
Byatarayanapura Sub-Division
BBMP, Bangalore.

Name of the Agency*: M/s.KRIDL, Bangalore

TABLE – 1

SL No	Details	For 108 mm	
		Test Results	Min Req. as per IS 1786-2008
01	Observed diameter of bar	**10.0mm**	10.0mm
02	Observed Wt/m Length **Kg/m**	**0.621**	0.567
03	Proof stress/Yield stress, fy , **N/mm^2**	**458.0**	415.0
04	Bend/ Re bend Test	**Ok**	---
05	Percentage of Elongation, %	**19.60**	14.50
06	Ultimate Tensile Strength **N/mm^2**	**614.0**	485.0

*As furnished by Client.
The Results relate only to the items tested.

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BUB/CTE/2016-17/

Date: 25-04-2016

1. TEST REPORT ON PRE –CAST SOLID BLOCKS:

Sub: Testing of Pre-Cast Solid Block- Compressive strength.
{Project*: Development and Improvements to Roads and Drains in Main Road and Cross Roads of Ward No.05, Jakkur}

Ref.: Letter No. Testing/BUB/2016-17, dated 21-04-2016

Sample supplied to lab by: Assistant Executive Engineer
Byatarayanapura Sub-Division
BBMP, Bangalore.

Name of the Agency*: M/s.KRIDL, Bangalore

RESULTS OF COMPRESSIVE STRENGTH ON PRE –CAST SOLID BLOCKS

SPECIMENS

TABLE 1. 1:-

Sl No	Dimensions of Specimen **mm**	Details	Cross Sectional Area **mm²**	Maximum Load in **KN**	Compressive Strength **N/ mm²**	**Average Compressive Strength N/ mm²**
1	400X 200X 200	Solid	80000	310	3.87	**3.83**
	----,,----	"	80000	300	3.75	
	----,,----	"	80000	310	3.87	

*As furnished by Client.
The Results relate only to the items tested.

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BUB/CTE/2016-17/

DATE: 31-05-2016

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 28 days Compressive Strength).
{Project*: Development and Improvements to Roads and Drains in Main Road and Cross Roads of Ward No.05, Jakkur}

Ref.: Letter No. Testing/BUB/2016-17, dated 30-05-2016

Sample supplied to lab by: Assistant Executive Engineer
Byatarayanapura Sub-Division
BBMP, Bangalore.

Name of the Agency*: M/s.KRIDL, Bangalore

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

Location* : Drain

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in Mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	02-05-16	30-05-16	28	22500	540	24.00	**23.92**
	002	"	"	"	"	525	23.33	
	003	"	"	"	"	550	24.44	

*As Furnished by Client.

The Results relate only to the items tested

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31/5/2016

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BUB/CTE/2016-17/

Date: 25-04-2016

TEST REPORT

Sub: Testing of Pre-cast Material-Kerb stones.
{Project*: Development and Improvements to Roads and Drains in Main Road and Cross Roads of Ward No.05, Jakkur}

Ref.: Letter No. Testing/BUB/2016-17, dated 21-04-2016

Sample supplied to lab by: Assistant Executive Engineer
Byatarayanapura Sub-Division
BBMP, Bangalore.

Name of the Agency*: M/s.KRIDL, Bangalore

1.PHYSICAL TESTS ON KERB STONES :

Sl No.	Details	Flexural strength, fcr in N/sqmm	Characteristic Compressive Strength, fck in N/sqmm	Avg. Characteristic. Compressive Strength fck in N/sqmm	Remarks
1	Kerb Stone	3.20	20.89	22.23	As per Cl. 6.2.2 of IS 456- 2000, fcr=0.7√ fck
2	‘’	3.30	22.22		
3	‘’	3.40	23.59		

*As furnished by Client.
The Results relate only to the items tested.

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25/04/2016

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JNANA BHARATHI
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BUB/CTE/2016-17/

DATE: 30-05-2016

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 28 days Compressive Strength).
{Project*: Development and Improvements to Roads and Drains in Main Road and Cross Roads of Ward No.05, Jakkur}

Ref.: Letter No. Testing/BUB/2016-17, dated 28-05-2016

Sample supplied to lab by: Assistant Executive Engineer
Byatarayanapura Sub-Division
BBMP, Bangalore.

Name of the Agency*: M/s.KRIDL, Bangalore

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{15}

Location* : Drain

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in Mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	30-04-16	28-05-16	28	22500	390	17.55	**17.55**
	002	"	"	"	"	400	17.77	
	003	"	"	"	"	395	17.33	
2	004	"	"	"	"	395	17.55	**17.33**
	005	"	"	"	"	390	17.33	
	006	"	"	"	"	385	17.11	

*As Furnished by Client.

The Results relate only to the items tested

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30/05/2016

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RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm
Grade of Concrete* : M_{15}
Location* : Drain

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in Mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	30-04-16	28-05-16	28	22500	385	17.11	**17.33**
	002	"	"	"	"	400	17.77	
	003	"	"	"	"	385	17.11	
2	004	"	"	"	"	410	18.22	**18.22**
	005	"	"	"	"	405	18.00	
	006	"	"	"	"	415	18.44	
3	007	"	"	"	"	385	17.11	**17.62**
	008	"	"	"	"	410	18.22	
	009	"	"	"	"	395	17.55	

*As Furnished by Client.
The Results relate only to the items tested

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